MINNESOTA PLANT PRESS

VOLUME 4 NUMBER 1 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY SPRING 1985

1984 FIELD TRIP SLIDES NEEDED

Bring your favorite ten field trip slides from MNPS 1984 field trips for the May 1 monthly MNPS meeting. Steve Eggers wil coordinate the showing of field trip slides. If you have questions about what to bring, he can be contacted at (evenings).

SAVAGE FEN UPDATE

The Savage Fen Wetland Complex in Scott County is a natural resource of ecological significance. The 64-acre fen is one of the best preserved among the 21 calcareous fens found in Minnesota. The plant communities are one of the rarest wetland communities in North America. Savage Fen contains seven plant species listed by the state as threatened or of special concern. A previous issue of the Minnesota Plant Press alerted MNPS members to the potential commercial expansions that would pose a serious threat to the fen's continued existence.

The Corps of Engineers has permit jurisdiction over the discharge of dredged or fill material in Savage Fen, under Section 404 of the Clean Water Act. Any party proposing to place such material in the fen must consult the Corps regarding permit requirements.

If you are interested in knowing more about the Savage Fen Complex, a copy of the report is available for study. Contact Neil Anderson for further information. The Minnesota Plant Press will keep you informed of any further developments regarding the protection of this critical area.

WILDFLOWER GARDEN TRANSPLANT AND SEEDLING EXCHANGE

As part of the May 1 meeting, an exchange of wildflower garden transplants and seedlings will be held.

If you need to thin out over-abundant native Minnesota wildflowers from your garden this spring, why not bring them to the exchange? Are you looking for a certain species? Perhaps someone has enough to share and can tell you the conditions under which it thrives.

If you are starting native plants from seed this spring, please bring in a few seedlings for others.

Plants should be labeled with name of plant, name of donor and phone number of donor. Come a little early to drop off your plants before the meeting begins.

PLEASE DO NOT COLLECT WILD PLANTS FOR THIS EXCHANGE.

One of the MNPS goals is the conservation of native plants. By gardening the plants started from seed and transplants from another garden, we can enjoy wildflowers in our gardens without disturbing native populations.

Chris Soutter

PROGRAM IDEAS FOR 1985-1986 NEEDED

The programs committee will be putting together the lecture series for 1985-1986 this summer. If you have ideas for topics or speakers, please convey this information to Peg Kohring.

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, Univ. of Minnesota, St. Paul, MN 55108

_____ New Member _____ Renewal

Membership Categories:

$8.00	_____	Individual	$6.00	_____	Senior (over 62 or retired)
$10.00	_____	Family (Two or more related individuals at same address)	$15.00	_____	Institution
$6.00	_____	Student (Full-time)	$25.00	_____	Donor

Name_____ Address_____

City_____ State_____ Zip_____ Phone_____

U. OF M. CAMPUS ADDRESS:_____

_____

UNIVERSITY HERBARIUM NEEDS CABINETS

The University of Minnesota Herbarium, located in the Biological Sciences Building on the St. Paul campus, desperately needs cabinets to house specimens. While a total of 150 cabinets are needed over the next five years, five cases are needed immediately. The current price is $500 per cabinet.

The Minnesota Native Plant Society has a challenge for membership donations. For every dollar you give to purchase a herbarium cabinet, MNPS will match the contribution dollar-for-dollar up to $250. A gift of $23 will buy an herbarium shelf and afford protection of plant specimens.

Fill out the form below and send it to the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, MN 55108.

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PHENOLOGY OF NERSTRAND WOODS

by Harriet Mason

Nerstrand Woods State Park is located in east central Rice County, 1½ miles west of the town of Nerstrand. The statutory boundary encloses two sections of land, a total of 1,280 acres. The northern section contains several steep-sided ravines, a waterfall and a portion of Prairie Creek with its bottom land and steep-sided valley slopes. The southern section also has a portion of Prairie Creek and some ravines but, in general, contains much more level land. Nerstrand Woods is a fine example of a Minnesota Maple-basswood forest. It is a remnant of the southern extension of the Big Woods type of vegetation which once covered south central Minnesota. Carpeted with wildflowers in the spring, it is worth a visit anytime of the year.

Most of the wildflowers listed can be found between the picnic or campgrounds and the waterfall, But many more trails are available for walking.

Anemone, False Rue	April 25
Anemone, Wood	May 2
Baneberry	May 25
Bellwort, Large-flowered	May 2
Blue Cohosh	May 12
Black Snakeroot	June 1
Bloodroot	April 20
Buttercup, Swamp	May 21
Crowfoot, Small-flowered	May 2
Dutchman's Breeches	April 25
Gooseberry, Prickly	May 2
Heart-leaved Alexander	May 24
Hepatica	April 20
Jack-in-the-Pulpit	May 25
Lady Slipper, yellow	May 19
Meadow Rue, Early	May 2
Marsh Marigold	April 30
Orchis, Showy	May 18
Spring Beauty	May 8
Sweet Cicely	May 25
Toothwort	April 27
Trillium	May 14
Trout Lily, Dwarf	April 30
Trout Lily, White	April 25
Violet, Blue	May 2
Virginia Waterleaf	May 19
Wild Blue Phlox	May 12
Wild Geranium	May 19
Wild Ginger	May 2
Wild Sarsparilla	May 19

TRANSPLANTING HELP NEEDED

Maplewood Nature Center, a forty acre preserve operated by the city of Maplewood, can use your help this spring. Volunteers are needed to plant native trees and shrubs in April and wildflowers in May. If you have never transplanted wildflowers or bare root trees, this would be an excellent opportunity to learn how.

Dates: Mid to late April — Plant bare root trees, shrubs and vines.

May 18, 8:30 a.m. — Plant wildflowers. Widlflower identification hike will follow transplanting.

June 1, 8:30 a.m. — Plant wildflowers. Wildflower hike at Jim McKee Prairie will follow transplanting.

Please call Chris Soutter if you can lend a hand.

TREASURER'S REPORT

Dec 15, 1984 - March 15, 1985

RECEIPTS	
Membership Dues	144.00
Draft Dividends	9.14
Savings Dividends	11.46
EXPENSES	
Postage	62.58
Printing	77.17
Supplies & Misc.	26.03
BALANCE ON HAND	
Draft Account	766.79
Savings Account	776.51
Petty Cash	73.20

SPECIAL THANKS

Thank you to the Botany Department at the University of Minnesota and Sandy Hansen for use of the projectors during our meetings, arranging room reservations and providing use of their word processor for typing our newsletters.

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson, P.O. Box 8052, St. Paul, MN 55108.

ELOISE BUTLER WILDFLOWER AND BIRD SANCTUARY NEEDS VOLUNTEERS

The sanctuary, established in 1907, covers 20 acres and contains four kinds of plant and animal habitats. A guidebook leads visitors along meandering trails which feature 51 points of interest in the bog, woodland, upland oak and prairie terrains.

The garden is enjoyed by many who like the quiet trails, birdwatching, woods lore and the ever changing display of wildflowers. Located north of Highway 12 and south of Glenwood Ave. on Theordore Wirth Parkway the garden is open from April 1, to November 1.

Volunteers greet visitors and answer the phone in the garden shelter. Volunteer hours are: weekdays 10 am-12:30 pm, 12:30-3:30 pm, weekends 12:30-4 pm. You may volunteer to work weekly, monthly or whatever time you have. For more information call: Joyce Smeby- or Shirley Schultz- .

ENDANGERED SPECIES ACT REAUTHORIZATION

The conservation of endangered species and their habitat is the goal of the Endangered Species Act, enacted by Congress in 1973. The Secretaries of Commerce and the Interior have responsibility for implementing the Act, the former being responsible for marine species and the latter for all others. Private citizens may participate in the designation of endangered species and their critical habitats, asssist in Act enforcement by legal action or by petitioning the Secretaries of the Interior and Commerce to initiate listings.

Now, ten years after enactment, this program is far behind its goal of adequate preservation. At present funding levels, the Fish and Wildlife Service would need 25 years to process the backlog of 1,000 known candidates for listing. Plant species receive inadequate protection once listed: on federal lands, plants are only protectd from taking when the plant(s) taken "are reduced to possession"; on private and non-federal lands, the Act does nothing to prevent vandals, collectors and others from destroying or collecting imperiled plant species. The evidence shows that effective plant conservation requires more than the act provides.

Congress needs to know where the public stands with regard to this dilemma. Please write to your senators (U.S. Capitol, Washington,D.C. 20510) and Representatives (U.S. Capitol, Washington, D.C. 20510) to let them know your opinion.

Polygala cruciata L. Cross Milkwort
Polygalaceae

OFFICIAL STATUS: Endangered

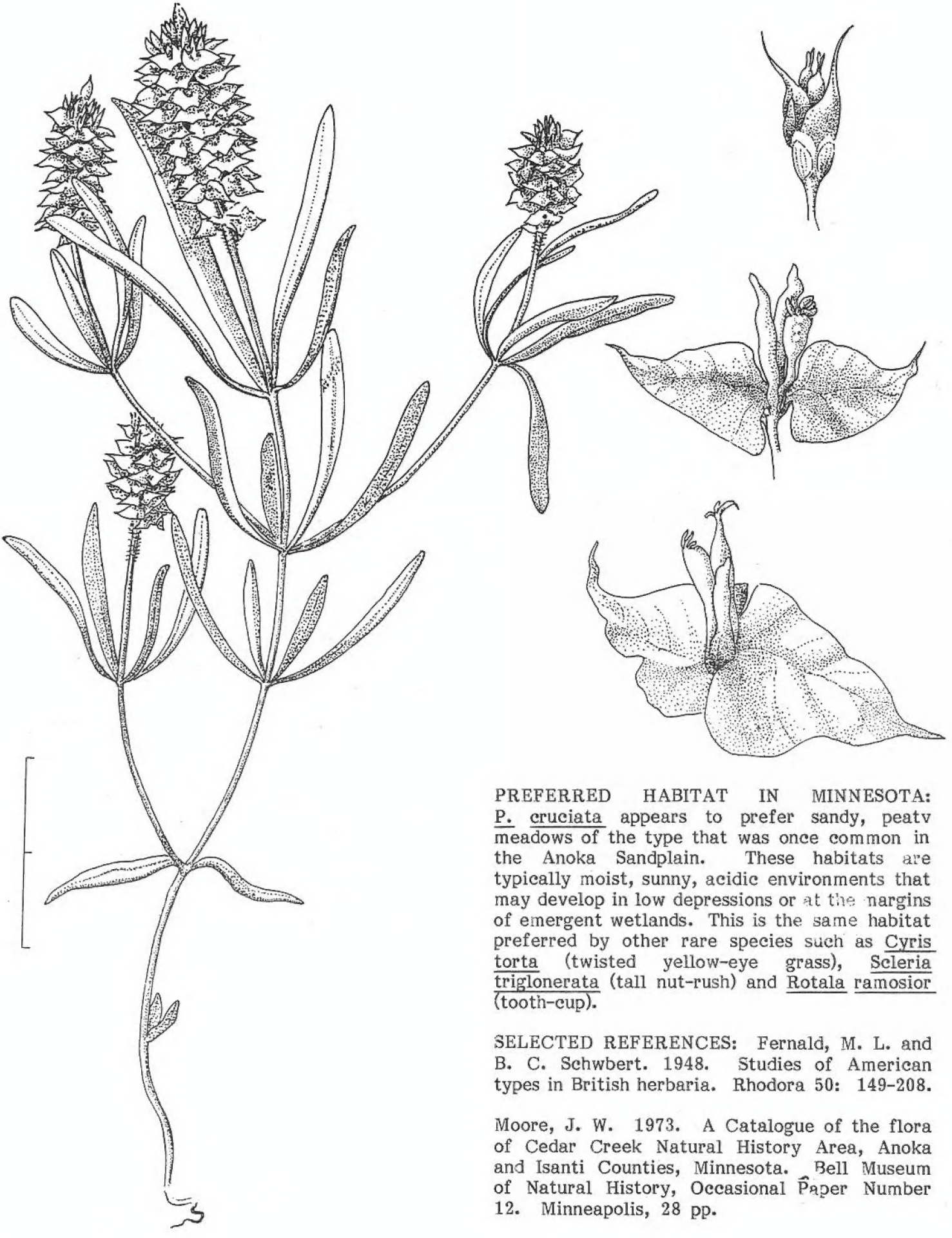
BASIS FOR MINNESOTA STATUS: This small, but conspicuous annual is frequently described as an "Atlantic Coastal Plain Element" in reference to its center of distribution. It occurs primarily in the Atlantic and Gulf Coastal Plains, but has scattered and infrequent occurrences inland. There also appears to be a discrete secondary range that is somewhat disjunct in the Great Lakes Region.

The populations in the Great Lakes Region have always been small and scattered, but they appear to have recently suffered a significant decline resulting from loss of habitat. For example, it is listed as endangered in Minnesota, threatened in Wisconsin and Ohio, and presumed extirpated in Iowa.

In Minnesota, P. cruciata has a long collection history that gives clear evidence of a decline. It was collected seven times between 1885 and 1905; five times between 1905 and 1966; and only once since 1966. Perhaps more revealing is that all of the records since 1905 are from Anoka County. It may now be extirpated from five of the six counties where it has been historically reported from. The only site where it is known to still survive is in Cedar Creek Natural History Area where it has been verified as recently as 1981.

The decline in Minnesota can be atributed directly to loss of habitat resulting from commercial, residential and agricultural expansion. The rate of habitat loss is increasing because of the heavy development pressure experienced in east-central Minnesota.

COMMENTS: Plants that occur in the northern portion of the species range (including Minnesota) are generally shorter with fewer divergent branches, than southern plants, and have been segregated as var. aquilonia Fern. & Schub. The northern variety occurs in both the inland coastal ranges.



PREFERRED HABITAT IN MINNESOTA: P. cruciata appears to prefer sandy, peatv meadows of the type that was once common in the Anoka Sandplain. These habitats are typically moist, sunny, acidic environments that may develop in low depressions or at the nargins of emergent wetlands. This is the same habitat preferred by other rare species such as Cyris torta (twisted yellow-eye grass), Scleria triglonerata (tall nut-rush) and Rotala ramosior (tooth-cup).

SELECTED REFERENCES: Fernald, M. L. and B. C. Schwbert. 1948. Studies of American types in British herbaria. Rhodora 50: 149-208.

Moore, J. W. 1973. A Catalogue of the flora of Cedar Creek Natural History Area, Anoka and Isanti Counties, Minnesota. Bell Museum of Natural History, Occasional Paper Number 12. Minneapolis, 28 pp.

FIELD TRIPS

Spring Wildflowers at Crawford Woods

Date: Saturday, May 11, 1985
Time: 9 a.m. to 12 noon

Description: Crawford Woods is a large and diverse example of the "Big Woods" forest that once covered 15% of Minnesota, but is now reduced to only 2500 acres. This large remnant, 120 acres in size, was recently acquired by The Nature Conservancy for the DNR's Scientifc and Natural Areas Program. Come and enjoy the spring wildflower display at this new preserve.

Meeting Place: From Rockford, Minnesota, take Highway 19 north for 6 miles to Highway 34. Turn left (west) onto 34 and go 6 miles. Turn right (north) onto County Road 126. Go one and one-quarter mile to the park on the righthand side of the road. The woods will stand out against the surrounding cultivated land. You will see Green Mountain Lake on the west side of Highway 126.

Leader: Keith Wendt. Keith is the Plant Ecologist for the DNR's Minnesota Natural Heritage Program.

Trip to Jim Mckee Prairie

Date: Saturday, June 1
Time: 10:30-11:45 a.m.

Description: Jim McKee Prairie is an undisturbed remnant of black soil prairie in Ramsey County. The three-acre site is remarkable for its purity and diversity. Among the plants flowering this day should be stargrass, blue-eyed grass, Indian Paintbrush, downy phlox, alumroot and wood betony. Jim McKee Prairie is owned by the City of Maplewood and is managed by Maplewood Nature Center.

Meeting Place: Meet at Maplewood Nature Center, 2659 East Seventh Street in Maplewood.

What to bring: Wear long sleeves and long pants. Terrain is not difficult, but may be damp

Leader: Chris Soutter, Naturalist at Maplewood Nature Center.

Red Lake Peatland - Bottom to Top

Date: Sat./Sun., June 22-23
Time: 1 p.m Saturday-Peatland Ecology
7 a.m. Sunday - Birds of the Peatland

Description: The Red Lake Peatland, which is a national Natural Landmark, is one of the largest and finest examples of a patterned peatland complex in North America. The Saturday trip will make stops along Highway 72 to explore the major bog and fen landforms, including a spruce ovoid island, a ribbed fen water track, and a tamarack teardrop island. A variety of rare, interesting plant species such as orchids, pitcher plants, and sundews should be seen, as well as an assemblage of bird species that are primarily confined to these unique habitats. PLEASE NOTE: your feet will get wet, so plan accordingly.

Meeting Place: Waskish, Minnesota. On the west side of Highway 72 there is a parking lot near the Tamarack River, which passes through town. Participants will meet there.

Leader: Norm Aaseng. As the DNR's Peat Program Biologist, Norm has been coordinator of the research to identify Minnesota's most ecologically significant and sensitive peatlands.

Weaver Bottoms Canoe Trip

Date: Saturday, July 27, 1985
Time: 10 am

Description: Weaver bottoms is a backwater of the Mississippi River and is composed of a diversity of wetland plant communities including deep marsh, shallow marsh and floodplain forest. The emphasis of the trip will be observing and identifying wetland plants. The highlight of the trip will be (hopefully) observing the extensive lotus beds in bloom. We will see a wide variety of submergent, floating-leaved and emergent plants. Also observed should be a number of species of waterfowl and wading birds. We will not be canoeing any great distance; we will simply be using the canoes for easy access to the wetland plant communities. This will be a joint trip with the St. Paul Audubon Society.

Directions: Weaver Bottoms is located in Wabasha County between Kellogg and Minneiska. From the Twin cities, take Highway 61 south to the Weaver boat landing. The landing is just off the east side of Highway 61. Look for the U.S. Fish and Wildlife Service refuge sign and the Weaver railroad shack. If you cross the Whitewater River, you've gone too far south. It's about a 2.5 hour drive from the Twin Cities.

What to Bring: Canoe, insect repellent, lunch, rain gear, camera

Trip leader: Steve Eggers, an ecologist with the St. Paul District Corps of Engineers.

Trip to Wild Indigo Prairie

Date: August 3, Saturday
Time: 10:00 a.m.

Description: Wild Indigo Prairie is included in the Scientific and Natural Areas Program. There are more than 400 species of plants that have been documented in the Prairie. Easy terrain.

Directions: Meet at the Blue Heron Cafe in Brownsdale at 10:00 am. The Cafe is on Highway 56 approximately 20 miles south of Dodge Center (due south of the Twin Cities Metro area). Bring your lunch or you can eat at a nearby cafe.

Leader: Welby Smith,

Black Dog Preserve: Prairie and Fen in the Twin Cities

Date: Saturday, August 24
Time: 9 a.m. to noon

Description: Black Dog Preserve is a unique fen and prairie complex in the metropolitan Twin Cities area. The preserve is a joint project of the Minnesota Chapter of The Nature Conservancy and the Minnesota Department of Natural Resources Scientific and Natural Areas Program. It is located in the city of Burnsville, on the south side of the Minnesota River.

A fen is most simply described as a grassland on a wet and spongy site, characterized by an internal upwelling of ground water. Unlike the more common "bog", fens are calcium-rich and support a distinct group of plants, several considered threatened or rare. This prairie is one of the best in the metropolitan area.

Meeting Place: Coming south from Minneapolis on 35W, take the Cliff Road exit immediately after you cross the Minnesota River. Follow the road east back under the freeway and then turn left onto Cliff Road. Park on the south end of the MTC Park and Ride Lot.

Leaders: Bob Djupstrom and Peg Kohring. Bob is Supervisor for the Scientific and Natural Areas Program of the Department of Natural Resources. Peg is Assistant Director for the Minnesota Chapter of the Nature Conservancy.

The Prairie in Fall: Glacial Lakes State Park and Ordway Prairie

Date: Saturday, September 12, 1985
Time: 10 a.m. to 4 p.m.

Description: The hill prairie at Glacial Lakes State Park is still much like that found there 100 years ago. Prescribed burns have maintained the species composition, resulting in spectacular displays of native plant communities throughout the growing season.
The Nature Conservancy's Ordway Prairie is a 582-acre mosaic of prairie, wetland, and woods located near the prairie-forest border in west central Minnesota.
Meeting Place: Glacial Lakes State Park. From Starbuck take Highway 29 south for 3 miles to where County Road 41 joins 29. Take 41 for 2 miles to Glacial Lakes State Park (you can also follow the brown and white State Park signs.) Meet at the beach picnic grounds parking lot.

Leaders: Paul Rundell and Ben Thoma.

Field Trip to Boot Lake SNA

Date: Saturday, September 21
Time: 10 a.m.

Description: Boot Lake Scientific and Natural Area (SNA) is located in northeastern Anoka county, approximately 18 miles southeast of Cambridge. The tract supports a diverse array of flora in a noteworthy succession of vegetation types. The preserve is significant geologically as part of a chain of ice-block basin lakes lying in a subglacially formed feature called a tunnel valley. One also finds a continuum of plant communities on the tract beginning with the emergent vegetation and floating mats bordering the lake, to wet meadows, to shrub thickets and wet forests in low-lying areas, through the oak forests found on the driest upland sites.

Directions: One hour's drive from the Twin Cities. From St. Paul, take I-35E north to Co. Road 26 in Wyoming. Take Co. Road 26 west to Co. Road 22, then turn south. Stay on 22 until you reach Co. Road 17, then take 17 east to the entrance sign for the Carlos Avery Wildlife Management Area (this is where the blacktop turns south). Turn left at this intersection onto the unmarked sand road and proceed north to the small parking lot (marked by a sign) for visitors to Carlos Avery area. This lot is located on the right side of the road about 3/4 miles in. Meet in the parking area at 10 a.m.

Leader: Peter Buessler,

Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108

CALENDAR OF EVENTS

May 1 - MNPS monthly meeting: "Root and Seedling Exchange" and Field trip slide show from 1984. 7:30 p.m.

May 11 - Nature Conservancy field trip to Crawford Woods, led by Keith Wendt. 9 a.m.

June 1 - MNPS field trip to Jim's Prairie, led by Chris Soutter. 10:30 a.m.

June 22-23 - Nature Conservancy field trip to Red Lake Peatland, led by Norm Aaseng. 1 p.m. Saturday and 7 a.m. Sunday.

July 27 - MNPS field trip to Weaver Bottoms, led by Steve Eggers. 10 a.m.

Aug. 3 - MNPS field trip to Wild Indigo Prairie, led by Welby Smith. 10 a.m.

Aug. 24 - Nature Conservancy field trip to Black Dog Preserve, led by Bob Djupstrom and Peg Kohring. 9 a.m.

Sept. 12 - Nature Conservancy field trip to Glacial Lakes State Park and Ordway Prairie, led by Paul Rundell and Ben Thoma. 10 a.m.

Sept. 21 - MNPS field trip to Book Lake Bog, led by Peter Buessler. 10 a.m.

MNPS monthly meetings are at 7:30 pm in the Palmer Classroom Building, Room 10, University of Minnesota, St Paul Campus

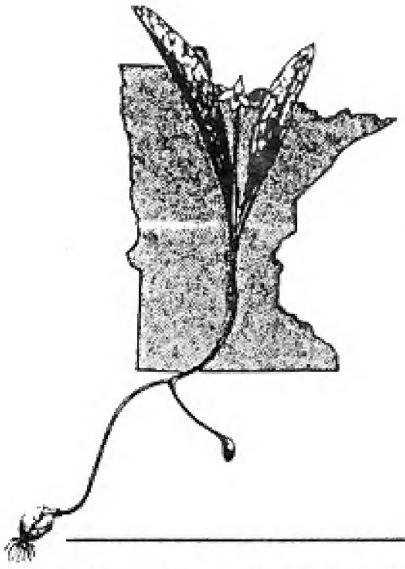
MNPS DIRECTORY

Officers — 1984/1985

Welby Smith, President
Steve Eggers, Vice-President
Deb Brown, Secretary
Roger Eliason, Treasurer
Evelyn Moyle, Director-at-large
May Wright, Director-at-large

Committees

Peg Kohring, Programs
Barbara Coffin, Conservation
Neil Anderson, Newsletter
Nancy Sather. Publicity



MINNESOTA PLANT PRESS

VOLUME 4 NUMBER 2 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY FALL 1985

OCTOBER SEED EXCHANGE

The annual Native Seed Exchange of the Minnesota Native Plant Society will be held on October 2, starting at 7:30 pm in **room 335 Borlaug Hall** on the St. Paul Campus (Note: this is a new meeting place for MNPS. Borlaug Hall is a new building on campus and is right next to Palmer Classroom building. See map under Calendar of Events).

Dr. May Wright will begin the evening with a presentation of methods that are used to germinate various seeds of native plants along with seedlings. Some potting mixtures and containers will be displayed. She will also tell how to find additional information on the subject. We hope to hear from members about some of their experiences in this regard, whether successful or not. Seeds will then be made available to participants. Those people who contribute to the exchange will make their selections first.

COLLECTING SEEDS FOR EXCHANGE

All seeds to be exchanged must be Minnesota natives that are free of pests and disease. Please follow this guideline:

1. Collect only a small percentage of seeds from a plant and plant community.
2. Be sure fruits are fully mature before pickings.
3. Label seeds with scientific and common names, collection site, habitat and date of collection.
4. Store in a cool, dry place and check seeds periodically for insects and mold.

SUBMITTING SEEDS FOR EXCHANGE

To standardize seed identification data and to facilitate distribution, seeds should be packaged before the exchange in printed envelopes furnished by MNPS.

Seeds are packaged and submitted in the following ways:

1. Submit seeds for packaging by mailing before September 25 to:
   Dr. May Wright

   Please add your name, address and phone number to the identification label.
2. Package seeds at home, then mail to Dr. Wright or bring them with you to the exchage. To obtain envelopes, call May Wright or Chris Soutter
3. Seeds that are not submitted before September 25 can be brought in a few minutes early to the exchange and packaged before the workshop begins.

****REMINDER******

The 3rd Annual Minnesota Botany Photographic Salon will be held at the November 6th MNPS monthly meeting. If you have any slides to submit for consideration, the deadline for receipt of slide entries is September 30. Contact Larry Quinn,

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, Univ. of Minnesota, St. Paul, MN 55108

_____ New Member _____ Renewal

Membership Categories:

$8.00	_____	Individual	$6.00	_____	Senior (over 62 or retired)
$10.00	_____	Family (Two or more related individuals at same address)	$15.00	_____	Institution
$6.00	_____	Student (Full-time)	$25.00	_____	Donor

Name_____ Address_____

City_____ State_____ Zip_____ Phone_____

U. OF M. CAMPUS ADDRESS: _____

_____

Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108. Welby Smith, President; Steve Eggers, Vice-President; Deb Brown, Secretary; Roger Eliason, Treasurer; Evelyn Moyle and May Wright, Directors-at-large; Neil Anderson, Editor. Minnesota Plant Press may be obtained through membership in the society: Single — $8.00, Family — $10.00, Student — $6.00.

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson, P.O. Box 8052, St. Paul, MN 55108.

MN NATIVE PLANT SOCIETY TREASURER'S REPORT
3/15/85 to 9/15/85

RECEIPTS	
Membership Dues	152.75
Draft Dividends	12.32
Savings Dividends	23.02
Botany Cabinet Contribution	105.00
EXPENSES	
Postage	179.69
Printing	386.72
Supplies & Misc.	42.00
BALANCE ON HAND	
Draft Account	625.65
Savings Account	599.53
Petty Cash	76.00

UPDATE ON MINNESOTA DWARF TROUT LILY AT NERSTRAND WOODS

At our May MNPS monthly meeting the destruction a portion of the population of Erythronium propullans, the Minnesota dwarf trout lily, at Nerstrand Woods State Park was brought to the attention of our members. This incident shocked everyone and it was decided that we should make our views known to the Department of Natural Resources. The following is a summary of the correspondence between the Department of Natural Resources and the Minesota Native Plant Society and events that took place over the summer.

On May 13, a letter went to all our members describing the biological status of the endangered, endemic Minnesota dwarf trout lily, the history of attempts to protect it at Nerstrand Woods, the bulldozing incident that destroyed part of the population there, and our recommendations to the DNR that the park manager and policies regarding protection of such a species be called to task. Our members responded with outraged calls and letters to state and local authorities and also to the media.

On May 22nd the DNR responded to the Board and to the members with a form letter expressing their concern, telling of initial steps being taken to protect the remaining trout lilies but also downplaying the importance of the bulldozing, pointing out that not as many had been destroyed. On June 21 the Board of Directors responded to this letter, pointing out that it was a serious incident regardless of the number of plants destroyed and that the park manager had ample opportunity to prevent its occurrence.

On June 10 a letter was written to the park manager at Nerstrand Woods asking him to tell us his side of the story for distribution to our members. We have not received a response.

MNPS also received a letter from Donald Davision, Director, Division of Parks and Recreation of the DNR, asking us to defend the allegations we made in our May 13th letter to our members. The Board met in early July to formulate a response. We acknowledged that we were glad the DNR recognized that this bulldozing was a deviation of the plan and that some action had been taken to protect the plants. But we restated our belief that this was a serious setback to the survival of the trout lily and that there was no excuse for the park manager not knowing the location of the endangered plants. We supported these statements with enclosures of newspaper articles, announcements of meetings about trout lily management (which the park manager attended) and copies of maps of the exact location of Minnesota dwarf trout lily plants. The DNR responded on 7/18 thanking us for the information.

Through the news media we learned that the park manager was suspended for 3 days without pay. This may seem a small punishment, but it is a major penalty to a DNR employee. Our letters did seem to have an effect on an incident that may have not been taken as seriously as it should. We have some assurances that steps are being taken to further protect the Minnesota dwarf trout lily population at Nerstrand Woods.

HOUSE VOTES ON ESA

On July 29, the US House of Representatives passed the Endangered Species Act (ESA) reauthorization by voice vote. No amendments to the Committee Bill (H.R. 1027) were permitted under the speeded-up vote.

Final Congressional action on the reauthorization of the ESA is not expected until September. The bill contains an important amendment sought by conservationists to require the Secretary of the Interior to monitor the status of candidate species eligible for the ESA's protection, but not yet listed.

Unfortunately, H.R. 1027 does not contain needed amendments to : 1) protect endangered plants from collectors and vandals on non-federal lands and 2) repeal a special 1978 provision that has complicated law enforcement efforts to stem the illegal trade of endangered peregrine falcons.

ELECTION OF MNPS BOARD MEMBERS

At the August 26, 1985, meeting of the MNPS Board of Directors, Harriet Mason was selected chairperson of the Nominating Committee for fall elections. The terms of the following members of the Board of Directors expire this year: (see Fall 1984 Plant Press): Margaret Kohring, Welby Smith, Neil Anderson, May Wright, Evelyn Moyle and Deborah Brown.

Nominations are being solicited to replace the board members and should be submitted by October 5 to Harriet Mason.

SPECIES STATUS SHEET

Montia chamissoi (Ledeb.) Durand & Jackson

No Common Name Portulacaceae

OFFICIAL STATUS: Endangered

SYNONYM: Claytonia chamissoi Esch.

BASIS FOR STATUS: This small perennial has a remarkable history in the midwest and illustrates an extreme case in rare plant biology. It is believed to be a relic of Minnesota's pleistocene flora which survived the most recent glacial advances in the unglaciated region or "Driftless Area" of south eastern Minnesota. When the glaciers retreated, Montia was unable to find suitable habitat in the recently deglaciated territory and remained confined to its isolated refugium.

The legacy of this long history is a single population surviving in the Mississippi Valley near Winona (Winona County). It was discovered there by J. M. Holzinger in 1889. The population occupies a shallow ledge near the base of a steep sandstone outcrop on the bank of an intermittent stream. The plants occur in a thin layer of mud and organic debris that is kept wet by a constant sheet of water seeping from the rock.

The population is currently stable and shows no sign of decline, in spite of a long history of overcollecting and natural disasters. This includes a storm in June 1899 which, according to Holzinger, left a foot of alluvium on the colony and destroyed all but a few plants. The survivors have since expanded to occupy an area of about 160 square feet which includes most of the available habitat. The area is a band 80 feet long, two feet wide and four to five feet above the stream bed. The population consists of several hundred (possible a thousand or more) shoots, or "ramets" that arose vegetatively from annual stolons that root at the nodes and produce tiny tubers or bulblets at their tips. It is this particular mode of reproduction that allows this species to survive in its unstable habitat which is continuously eroding and slipping into the stream below. The ability to quickly replace lost individuals and maintain its precarious position may account for the remarkable longevity of this population.

Most of the potential threats to this species have already been realized, i.e., erosion, siltation, overcollecting. and yet, the singular nature of the population and its tenuous existence continues to make it susceptible to such events. It is also vulnerable to human activities which could disrupt the constant flow of cold spring water that sustains the plants.

PREFERRED HABITAT: The single Minnesota population occurs on the west-facing exposure of a dripping sandstone outcrop. The outcrop forms the east bank of a small intermittent stream in a deciduous forest. The face of the sandstone is nearly vertical, but retains a thin layer of mud in which Montia is shallowly rooted. This is a cool, moist shaded habitat where there is little competition from other species. The few associated species include: Impatiens capensis (spotted touch-me-not), Cystopteris bulbifera (bulblet fern), and hepatics (liverworts).

SELECTED REFERENCES: Holzinger, J. M. 1901. The duration of Claytonia chamissoi Ledeb. Plant World 4:41-43.

Wherry, E. T. 1964. The most disjunct species in Pennsylvania. Bartonia 34:.

MINNESOTA STATUTES CONCERNING SPECIES CONSERVATION

A copy of the official list of endangered, threatened, and special concern plants and animals (Jan. 1984), as well as copies of Minnesota State Statutes regarding rare flora are available for MNPS members to use as reference material (see Neil Anderson).

There are currently 38 endangered, 40 threatened and 86 special concern species of vascular plants. The Plant Group Committee has also deemed 14 lichens and three mosses as worthy of protection.

The following statutes govern the protection of these state treasures:

17.23 Conservation of certain wild flowers

Subdivision 1. Prohibition. No person within the state shall buy, sell, offer or expose for sale, the state flower (Cypripedium reginae), or and species of lady slipper (Cypripedieae), or any member of the orchid family, trillium of any species, lotus (Nelumbolutea), gentian (Gentiana), arbutus (Epigaea repens), or any special of lilies (Lilium), or any thereof, dug cut, plucked, pulled, or gathered in any manner from any public land or from the land of any private owner without the written concent of such owner or other occupant of such land, and then only upon written permission of the commissioner, and for scientific and herbarium purposes; except, that any persons may upon their own lands cultivate for sale and sell these flowers by registering the purpose to do the same with the commissioner.

97.488 Protection of threatened and endangered species.

Subdivison 1. Prohibiton. Notwithstanding any other provision of law, the taking, import, transport, or sale of any endangered species of wild animal, plant or parts thereof, or the sale possession with intent to sell any article made in whole or in part from the skin, hide or any parts of any endangered species of wild animal or plant is prohibited, except as provided in subdivisions 1a and 6.

Subd. 1a. Application. The provisions of subdivion 1 do not apply to plants on land classified for property tax purposes as class 3 or 3b agricultural land pursuant to section 273.13, or on ditches and roadways. The provison of subdivision 1 do not apply to noxious weeds designated pursuant to sections 18.171 to 18.315 or to weeds otherwise designated as troublesome by the department of agriculture. When control of noxious weeds is necessary, it takes priority over the protection of endangered plant species, as long as reasonable effort is taken to preserve the endangered plant species first.

The taking or killing of an endangered plant species on land adjacent to class 3 or 3b agricultural land as a result of the applicaiton of pesticides or other agricultural chemical on the class 3 or 3b land shall not be a violation of subdivision 1, as long as reasonable care is taken in the pesticide of other chemical applicaiton to avoid impact on adjacent lands.

The accidental taking of an endangered plant where the existance of the plant is not known at the time of the taking, shall not be a violation of subdivision 1.

For the purpose of this subdivision, class 3 or 3b agricultural land does not include timber land, waste land, or any land for which the owner receives a state paid wetlands or native prairies tax credit.

Subd. 2. Designation. The commissioner of natural resources, not later than January 1, 1984, by adoption of rules pursuant to chapter 14, shall designate any species of wild animal or plant as:

(1) Endangered, upon a showing that such species is threatened with extinction throughout all or a significant portion of its range; or

(2) Threatened, upon a showing that such species is likely to become endangered within the foreseeable future throughout all of a significant portion of its range; or

(3) Species of special concern, upon a showing that while a species is not endangered or threatened, it is extremely uncommon in Minnesota, or has unique or highly specific habitat requirements and deserves careful monitoring of its status. Species on the periphery of their range which are not listed at threatened my be included in this category along with those species which were once threatened or endangered by not have increasing or protected, stable populations.

BOOK REVIEWS

Chronological phenomena in plant communites: Proceedings of the 26th Int. Symposium of the Int. Association for Vegetation Science. Edited by R. Neuhasl, H. Dierschke, and J. Barkman. 1985. Hingham, MA: Kluwer Academic Publishers.

The aim of this symposium was to contribute to the special and general knowlege of spatial relations in the plant cover. In spite of being the oldest branch of the vegetation science, synchorology still does not have a consistent theroetical bsis. The broad spectrum of the presented papers indicates the idea of vegetation scientists on the contents of this branch of geobotany. Because of the limited publication facilities it was necessary to select the papers and publish only those which were concentrated on one of the following problems;
- Chorological influences in the formation and differentiation of natural, semi-natural and anthropogenous plant communites.
- Syntaxonomic evaluation of chorological phenomena; vicarious and corresponding syntaxa; transitions between plant communites.
- Diagnostic value and distribution of species and chorological groups in plant communiteis.
- Distribution areas of syntaxa and their changes.

A complete list of lectures presented at this symposium and their discussions and a list of participants complete the book.

Land Saving Action: a written symposium on private land conservation in the 1980s. Edited by Russell Brenneman and Sarah Bates. 1985. Washington, DC; Island Press. $24.95 (paper).

Twenty-nine outstanding authorities on land conservation collaborated together to make a definitive statement on the subject. The written symposium covers the following areas: 1) case studies on preserving three geographically diverse areas and the innovative solutions that have applicability to other lands; 20 land-saving organizations — includes local and nationally-active groups which all share educational functions and land management responsibilites; 3) conservation transactions — how to accomplish formal land protection through legal channels; 4) articles on federal taxation — how the tax code affects land-saving programs; and 5) land-saving and the individual landowner. In essence, it is an up-to-date guide for land-conservationists.

Plant conservation in the mediterranean area. Edited by C. Gomex-Campo. 1985. Hingham, MA: Kluwer Academic Publishers. $67.50

The mediterranean basin was one of the first to suffer the effects of massive deforestation and the need for conservation was voiced as long ago as the 6th century BC by Plato and a graphic account is given in J. V. Thurgood's "Man and the Mediterranean Forest: A history of resource depletion."

This present volume, which has been organized and edited by Professor Cesar Gomez-Campo, is particularly timely as it focuses attention on the serious problems facing us in this area, giving case histories of plants for many of the countries concerned, and suggesting possible solutions.

Contents: Part One - General: 1. The conservation of mediterranean plants: principles and problems. 2. Definition of the Mediterranean region and the origin of its flora. 3. The history of flora and vegetation and past and present human disturbance in the Mediterranean region. Part Two - Conservation problems in the different sub-areas. Case histories: 4. The Iberian Pennisula. 5. The Italian Peninsular and Alpine regions. 6. The Greek Mountains. 7. The Anatolian Peninsula, 8. The arid Eastern and Southeastern Mediterranean Regions. 9. The Maghreb countries. 10. The Mediterrranean Islands. Part Three - Actions and solutions: 11. The value of information in saving threatened Mediterranean plants. 12. Conservation of plant species within their native ecosystems. 13. The role of botanical gardens in the maintenance of living conservation-oriented collections. 14. Seed banks as an emergency conservation strategy.

AHS PRESENTS FIRST WILDFLOWER REDISCOVERY AWARDS

The American Horticultural Society (AHS) announced the presentation of its first Wildflower Rediscovery Awards to five individuals who have discovered new populations of exteremely rare species of wildflowers.

New populations of the plant, sandplain gerardia, Agalinis acuta, were discovered on long Island by Bob Zaremba, a botanist for the New York Natural Heritage Program. Although sandplain gerardia was once found in Connecticut, Rhode Island, New York, and Massachusetts, by 1978 botanists feared that he species had become extinct. Apparently, fire control and development were responsible for the decline of the species, which was once found in the open, grassy habitat characteristic of areas that are periodically cleared by natural fires. Two very small populations were discovered in cemeteries in Massachusetts, where regular, intermittent mowing has preserved the open conditions required by fire dependent species.

Running Buffalo clover, Trifoium stoloniferum, was rediscovered in West Virginia by Rodney Bartgis, a botanist the The Nature Concervancy West Virginia Field Office. This species had not been seen anywhere in the wild since 1940, although it once had been found in the Ohio and Missouri River Basins. The U.S. Fish and Wildflife Service Office had ranked the species as possibly extinct until Bartgis discovered four plants which were located in two sites in West Virginia. Today, 25 plants are known from two sites.

The rare aquatic plant, Bacopa stragula, mat-forming water hyssop, was found in Virginia by Larry Morse, National Research Associate at The Nature Conservancy (and MNPS member!), and Steve Croy from the Virginia Natural Diversity Program. These plants occurred in Maryland and Virginia at one time, but had not been seen since 1941. Two other populations, located after the initial discovery, bring the total known population of the species to about 100 plants. Arrangements are being made by The Nature Conservancy to protect these plants.

Several significant discoveries have been made in recent years by the staff of the Oregon Natural Heritage Program. Jimmy Kagan rediscovered three species in Oregon, none of which had been seen in the wild for many years: Oregon semaphore grass, Pleuropogon oregonus; Applegate's milkvetch, Astragalus applegatii; and rough allocarya, Plagiobothrys hirtus.

All the recipients received certificates and rewards from the American Horticultural Society's Wildflower Rediscovery Project Fund.

AHS, a national non-profit organization for gardeners, is vitally interested in the conservation of plants. Experts estimate that one-tenth of the species and varieties of plants native to the continental United States are in jeopardy. To increase awareness of endangered plants and to promote plant conservation, the Society instituted its Wildflower Rediscovery Project and published its 1985 Endangered Wildflowers Calendar. Funds from the calendar sales are being used to support conservation projects. Public response to the Wildflower Resdiscovery project and to the calendar has been overwhelming. The 1986 Endangered Wildflower Calendar will be available in the late summer at the retail price of $6.95. AHS members may purchase the calendar at the discounted price of $6.25. Both include postage and handling.

For information about membership in the Society or the 1986 Endandgered Wildflower Calendar, please write to: AHS, P.O. Box 0105, Mount Vernon, VA, or call (703) 768-5700.

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CALENDER OF EVENTS

Oct. 2 MNPS monthly meeting: Annual Seed Exchange; Dr. May Wright and Chris Soutter.

Nov. 6: MNPS monthly meeting: Third Annual Minnesota Botany Photographic Salon; co-sponspred by the Minnesota Nature Photography Club and MNPS. Shown by Ken Olson.

Dec. 4 MNPS monthly meeting: Clifford Ahlgren, author of Lob Trees in the Wilderness, a history of the forests of the Boundary Waters Canoe Area.

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CHANGE OF MEETING ROOM FOR MONTHLY MEETINGS

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Palmer Classroom is not available this quarter, so we have been rescheduled to 335 Borlaug Hall. We still meet on the first Wednesday of the month from 7:30 - 9:30.

Borlaug Hall is a brand new building at the University of Minnesota on the St. Paul Campus. It is nextto to Palmer Classroom, a bit higher on the hill. Please note on the map below that you can still park in the same places as you did for Palmer Classroom.

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